

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. Canceled.

17. (Previously presented) A container system which comprises

- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
- (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
- (c) a module which
 - (i) was constructed separately from the shipping container,
 - (ii) is within the container, and
 - (iii) comprises a closed chamber including an internal atmosphere control member (ACM), an inlet for gas and an outlet for gas, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a second atmosphere.

18. (Previously presented) A container system according to claim 17 which comprises one or more sensors which measure the concentration of at least one

gas in the inner atmosphere, pressure-generating means for supplying the second atmosphere to the second surface of the ACM, and a metering device for changing the rate at which the second atmosphere is supplied to the second surface of the ACM in response to input from the one or more sensors.

19-21. Canceled.

22. (Previously presented) A container system according to claim 17 which comprises a first flexible conduit which connects the inlet of the module to one or more sources of the second atmosphere, and a second flexible conduit which connects the outlet of the module to a gas disposal means.

23. (Previously presented) A container system according to claim 17 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P_{10} ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3.

24. (Previously presented) A container system according to claim 17 wherein the respiring biological material is packed in a plurality of ACM-containing sealed inner containers.

25. (Previously presented) A container system according to claim 17 wherein the module comprises first and second internal ACMs, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.

26. (Previously presented) A container system according to claim 25 wherein the second ACM has an R ratio of 1.

27. (Previously presented) A container system according to claim 17 wherein

the module comprises a first chamber comprising a first internal ACM and a second chamber comprising a second internal ACM, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.

28. (Previously presented) A container system according to claim 27 wherein the second ACM has an R ratio of 1.

29. (Canceled)

30. (Previously presented) A container system according to claim 17 wherein the second atmosphere flows through the chamber at a rate of 5-500 cfm.

31. (Previously presented) A container system according to claim 17 wherein the rate at which the second atmosphere flows through the chamber is 0.0025 to 0.25 ft³ per in² of ACM exposed to the second atmosphere.

32. (Previously presented) A container system according to claim 17 wherein the chamber is selected from

- (i) a rectangular parallelepiped which comprises two major faces and four minor faces; and in which at least one of the major faces includes an ACM, a first minor face includes at least one inlet for the second atmosphere, and a second minor face opposite the first minor face includes at least one outlet for an outgoing atmosphere, and
- (ii) a chamber comprising a generally cylindrical surface which comprises the ACM, and two opposite end faces, one of the end faces including at least one inlet for the second atmosphere and the other of the end faces including at least one outlet for an outgoing atmosphere.

33. (Previously presented) A container system according to claim 17 wherein the ACM consists of a microporous film having a single polymeric coating thereon.

34. (Previously presented) A method of loading a container, said container being a shipping container which has a capacity of at least 40 m³, and which can be loaded onto and transported by a ship or a truck, the method comprising

- 5 (A) providing said shipping container,
- (B) loading a respiring biological material into the container;
- (C) after step (B), placing in the container a module which
 - (a) was constructed separately from the container, and
 - (b) comprises (i) a closed chamber comprising an internal
 - 10 atmosphere control member (ACM), (ii) an inlet and (iii) an outlet, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with a first atmosphere surrounding the respiring biological material, and the second surface not being in direct contact with the first
 - 15 atmosphere, not being part of the exterior surface of the container, and being in direct contact with a second atmosphere within the closed chamber;
- (D) connecting the inlet of the module to a first conduit which is connected to one more sources of the second atmosphere;
- 20 (E) connecting the outlet of the module to a second conduit which provides a gas disposal means; and
- (F) sealing the container.

35. (Previously presented) A method according to claim 34 wherein each of the first and second conduits is flexible.

36. (Previously presented) A method according to claim 34 wherein the ACM has an R ratio of least 3.0.

30 37. (Canceled)

38. (Previously presented) A method according to claim 34 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P_{10} ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3.

5
39. (Currently amended). A method according to claim 34 wherein the module comprises a first internal ACM and an additional internal ACM ~~first and second internal ACMs~~, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous
10 substrate being a microporous film or a nonwoven fabric, and the additional second ACM having an R ratio of 1.0 to 2.3.

40. (Currently amended) ~~A method according to claim 34 of loading a container,~~
said container being a shipping container which has a capacity of at least 40 m³, and
15 which can be loaded onto and transported by a ship or a truck, the method
comprising

(A) providing said shipping container,

(B) loading a respiring biological material into the container;

(C) after step (B), placing in the container a module which

20 (a) was constructed separately from the container, and

(b) comprises (i) a closed chamber comprising an internal atmosphere control member (ACM), (ii) an inlet and (iii) an outlet, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact
25 with a first atmosphere surrounding the respiring biological material, and the second surface not being in direct contact with the first atmosphere, not being part of the exterior surface of the container, and being in direct contact with a second atmosphere within the closed chamber;

30 (D) connecting the inlet of the module to a first conduit which is connected to one more sources of the second atmosphere;

(E) connecting the outlet of the module to a second conduit which provides a gas disposal means; and

(F) sealing the container;

the method including which includes the step of providing within the container an
5 auxiliary closed chamber which is different from the closed chamber of
the module, and which comprises an auxiliary internal atmosphere control
member (ACM) having an R ratio of 1.0 to 2.3, and an auxiliary inlet for gas, and an
auxiliary outlet for gas, the auxiliary ACM comprising a first surface and a second
10 surface, the first surface being in direct contact with the first atmosphere, and the
second surface not being in direct contact with the first inner atmosphere, not being
part of the exterior surface of the container, and being in direct contact with an
auxiliary second atmosphere, and access of gas to the auxiliary chamber and to the
closed chamber in the module being controlled in different ways.

15 41. (Previously presented) A method according to claim 40 wherein the auxiliary ACM has an R ratio of 1.

42. (Previously presented) A method according to claim 40 wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating
20 thereon, the porous sheet material being a nonwoven fabric or a microporous film.

43. (Previously presented) A method according to claim 40 wherein the respiring biological material is packed in a plurality of ACM-containing sealed inner
25 containers.

44. (Currently amended) A method according to claim 34 which includes the steps
of providing one or more sensors which measure the concentration of at least one
gas in the atmosphere surrounding the biological material, and providing primary
pressure-generating means for supplying the primary second atmosphere to the
30 second surface of the primary ACM at a rate which can be changed in response to
input from the one or more sensors.

45. (Previously presented) A method of unloading a container system which comprises.

- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - 5 (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
 - (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
 - 10 (c) a module which
 - (i) was constructed separately from the shipping container,
 - (ii) is within the container, and
 - (iii) comprises a closed chamber including an internal atmosphere control member (ACM), an inlet for gas and an outlet for gas, the ACM
 - 15 having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a second
 - 20 atmosphere;
- the method comprising the steps of
- (A) unsealing the container,
 - (B) after step (A), removing the module, and
 - (C) after step (B), unloading the respiring biological material from the
 - 25 container.

46. (Previously presented) A method according to claim 45 wherein the module comprises a first flexible conduit which connects the inlet of the module to one or more sources of the second atmosphere, and a second flexible conduit which

30 connects the outlet of the module to a gas disposal means.

47. (Previously presented) A method according to claim 45 wherein the ACM has an

R ratio of least 3.0.

48. (Previously presented) A method according to claim 45 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P_{10} ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3.

49. (Previously presented). A method according to claim 45 wherein the module comprises first and second internal ACMs, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.

50. (Currently amended) A method according to claim 45 wherein the sealed container includes an auxiliary closed chamber which is different from the closed chamber of the module **[[,]]** and which comprises an auxiliary internal atmosphere control member (ACM) having an R ratio of 1.0 to 2.3, ~~an auxiliary inlet for gas, and an auxiliary outlet for gas,~~ the auxiliary ACM comprising a first surface and a second surface, the first surface being in direct contact with the first atmosphere, and the second surface not being in direct contact with the first atmosphere, not being part of the exterior surface of the container, and being in direct contact with an auxiliary second atmosphere, and access of gas to the auxiliary chamber and to the closed chamber in the module being controlled in different ways.

51. (Previously presented) A method according to claim 50 wherein the auxiliary ACM has an R ratio of 1.

52. (Previously presented) A method according to claim 50 wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating thereon, the porous sheet material being a nonwoven fabric or a microporous film.

53. 55. (Currently amended) A container system which comprises ~~comprises.~~

- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
- (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
- (c) a module which
 - (i) was constructed separately from the shipping container,
 - (ii) is within the container, and
 - (iii) comprises a primary closed chamber including a primary internal atmosphere control member (ACM), a primary inlet for gas and a primary outlet for gas, the primary ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a primary second atmosphere, and
- (d) an auxiliary closed chamber which
 - (i) is within the container,
 - (ii) is different from the closed chamber of ~~separate from the~~ module, and
 - (iii) comprises an auxiliary internal atmosphere control member (ACM), ~~an auxiliary inlet for gas and an auxiliary outlet for gas,~~ the auxiliary ACM having an R ratio of 1.0 to 2.3 and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being in direct contact with an auxiliary second atmosphere, access of gas to the

primary closed chamber in the module and access of gas to the auxiliary closed chamber being controlled in different ways.

~~54. 56.~~-(Currently amended) A container system according to claim 53 ~~claim 55~~
5 which further comprises

(e) one or more sensors which measure the concentration of at least one gas in the inner atmosphere,

(f) primary pressure-generating means for supplying the primary second atmosphere to the second surface of the primary ACM at a rate which can be
10 changed in response to input from the one or more sensors. and

(g) auxiliary pressure-generating means for supplying the auxiliary second atmosphere to the second surface of the auxiliary ACM.

~~55. 57.~~-(Currently amended) A container system according to claim 53 ~~claim 55~~
15 wherein the auxiliary ACM has an R ratio of 1.

~~56. 58.~~ (Currently amended) A container system according to claim 53 ~~claim 55~~
wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating thereon, the porous sheet material being a nonwoven fabric or a
20 microporous film.

~~57. 59.~~-(Currently amended) A container system according to claim 53 ~~claim 55~~
wherein the primary closed chamber comprises a second internal atmosphere control member (ACM), the second ACM having an R ratio of 1 to 2.3, and
25 comprising a first surface which is in direct contact with the inner atmosphere and a second surface which is not in direct contact with the inner atmosphere, is not part of the exterior surface of the container, and is in direct contact with the primary second atmosphere.

~~58. 60.~~-(Currently amended) A container system according to claim 53 ~~claim 55~~
30 wherein the module comprises (1) a first flexible conduit which connects the primary

inlet to one or more sources of the primary second atmosphere, and (2) a second flexible conduit which connects the primary outlet to a gas disposal means.